Claims

- 1 1. A formulation comprising at least one anesthetic compound selected
- from the group consisting of procaine, lidocaine, tetracaine and salts thereof;
- and a skin penetration enhancer, and a gelling agent in an anhydrous mixture.
- 1 2. The formulation of claim 1 wherein said skin penetration enhancer is at
- least one compound selected from the group consisting of: benzyl alcohol,
- 3 propylene glycol, and ethoxydiglycol.
- 1 3. The formulation of claim 1 wherein at least two skin penetration
- 2 enhancers are present.
- 1 4. The formulation of claim 1 wherein said at least one anesthetic
- 2 compound is present in said formulation from 1 to 25 total weight percent.
- 1 5. The formulation of claim 3 further comprising a third skin penetration
- 2 enhancer.
- 1 6. The formulation of claim 1 wherein said at least two anesthetic
- 2 compounds are procaine, lidocaine and tetracaine, or salts thereof.
- The formulation of claim 1 wherein lidocaine is present from 0.5-6 total
- 2 weight percent.

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- 1 8. The formulation of claim 1 wherein said skin penetration enhancer is
- 2 present from 0 to 95 total weight percent.
- 1 9. The formulation of claim 1 wherein said skin penetration enhancer is
- 2 present from 25 to 45 total weight percent.
- 1 10. The formulation of claim 1 wherein the gelling agent is a cellulosic
- 2 polymer.
- 1 11. The formulation of claim 1 wherein the gelling agent is hydroxypropyl
- 2 cellulose.
- 1 12. The formulation of claim 11 wherein the hydroxypropyl cellulose has a
- 2 viscosity ranging between 1000 and 2000 centipoise at 25 degrees centigrade.
- 1 13. The formulation of claim 12 wherein the concentration of hydroxypropyl
- 2 cellulose ranges from 0.5 5 total weight percent.
- 1 14. The formulation of claim 1 further comprising a dispersing agent.
- 1 15. The formulation of claim 1 further comprising an ingredient selected
- from the group consisting of: preservative, fragrance, buffer, and an emollient.

- 1 16. The formulation of claim 1 further comprising a therapeutic agent.
- 1 17. The formulation of claim 16 wherein the therapeutic agent is selected
- from the group consisting of: analgesics, anxiolytic compounds,
- antiarrhythmics, antibacterials, antibiotics, anticoagulants, anticonvulsants,
- 4 antifungals, antihistamines, anti-inflammatories, antivirals, bronchodilators,
- 5 calcium channel blockers, cytotoxics and anticancer agents, cytokines, growth
- 6 factors, immunosuppressives, muscle relaxants, psychotherapeutics,
- 7 sympathomimetics, vasodilators, vitamins, and combinations of these.
- 1 18. The formulation of claim 16 wherein the therapeutic agent is an anti-itch
- 2 compound.
- 1 19. A method for reducing pain sensation, the method comprising the steps
- 2 of:
- applying a therapeutically effective amount of an anhydrous gel
- 4 anesthetic formulation according to claim 1 to the area of an individual's skin
- 5 to be anesthetized; and
- allowing the gel anesthetic to remain in contact with the area for a period
- 7 of time sufficient to reduce pain sensation.
- 1 20. The method of claim 19 further comprising the step of:

- 2 applying a therapeutically effective amount of an anesthetic formulation
- 3 comprising a topical anesthetic compound, a skin penetration enhancer and a
- 4 volatile co-solvent, to the area to be anesthetized.
- 1 21. A method for reducing pain associated with the application of laser
- energy to the skin, said method comprising the step of applying a
- 3 therapeutically effective amount of a topical anesthetic according to claim 1 to
- 4 the area of the skin to be treated prior to the application of laser energy.
- 1 22. A commercial kit comprising at least one topical anesthetic compound
- 2 formulated according to claim 1, together with instructions for use thereof as a
- 3 topical anesthetic.
- 1 23. The commercial kit of claim 22 further comprising a second topical
- 2 anesthetic, said second topical anesthetic comprising a skin penetration
- 3 enhancer and a volatile co-solvent.
- 1 24. A method of local anesthesia comprising the step of applying to intact
- 2 skin or oral mucosa the formula of claim 1.